DOE/OR/21949-280

Formerly Utilized Sites Remedial Action Program (FUSRAP)
Contract No. DE-AC05-91OR21949

REMEDIAL INVESTIGATION REPORT FOR THE ST. LOUIS SITE

St. Louis, Missouri

January 1994

4.45 3362.2

contamination was found on portions of the properties adjacent to Latty Avenue or to HISS. Surface and subsurface soil samples were collected from these areas and from surrounding locations where elevated gamma readings had been detected.

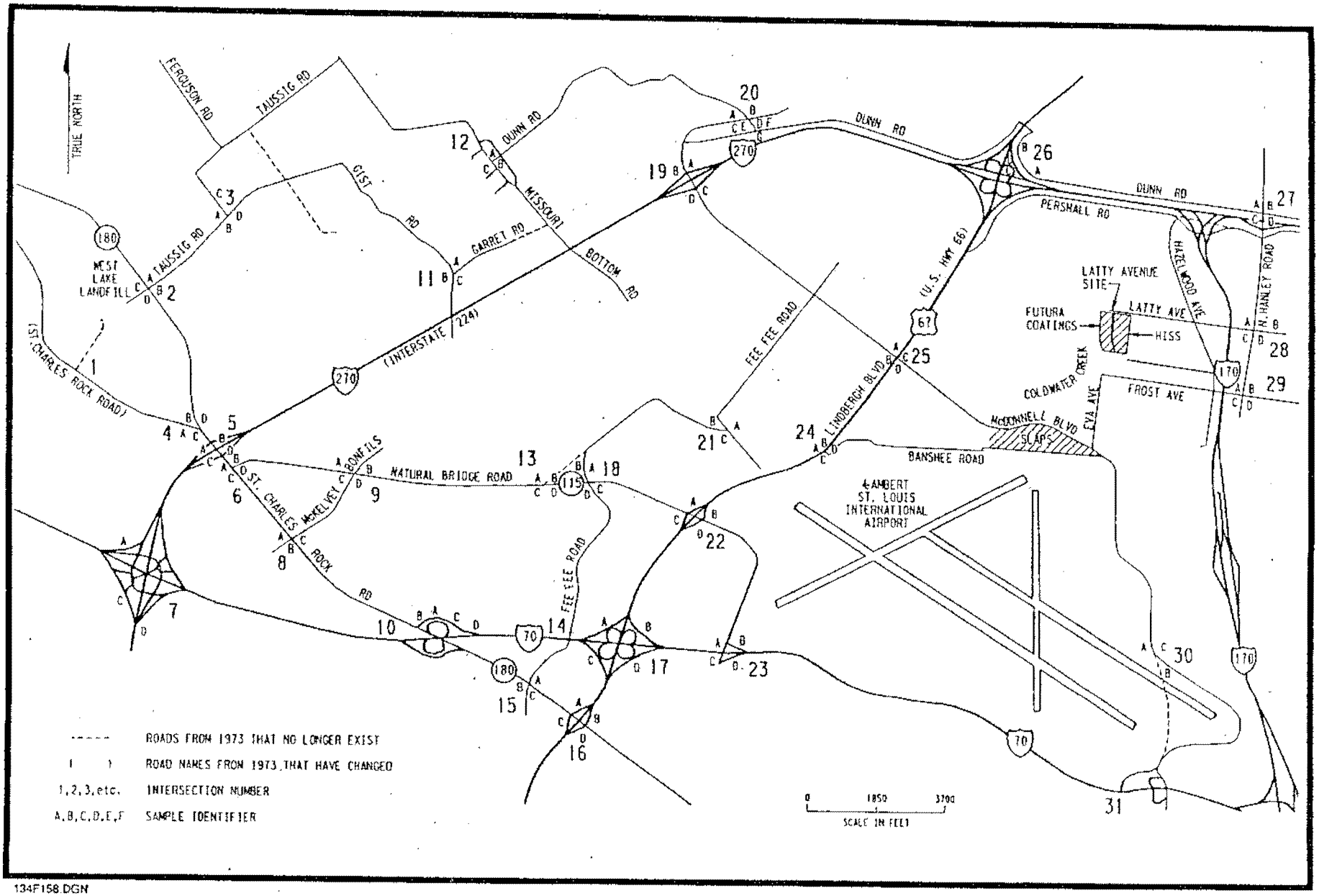
Soil samples were collected from 109 surface and 45 subsurface locations on Property 1; from 117 surface and 55 subsurface locations on Property 2; from 27 surface and 12 subsurface locations on Property 3; from 18 surface and 9 subsurface locations on Property 4; from 16 surface and 8 subsurface locations on Property 5; and from 55 surface and 7 subsurface locations on Property 6.

Details regarding the soils investigation are provided in BNI 1990d.

2.1.8 Investigations at the Transportation Routes Between HISS and West Lake Landfill and Between SLDS and SLAPS

Potential waste transportation routes were identified based on historical and recent maps. Thirty-one intersections on these routes between HISS and West Lake Landfill were selected (Figure 2-24), and a walkover gamma radiation scan was conducted at each. Only 28 of the 31 intersections were sampled due to inaccessibility of three locations: Intersection 1 no longer exists; Intersection 14 is an overpass where Fee Road crosses I-70; and Intersection 31 is an overpass where McDonnell Boulevard crosses I-70. Two sampling locations were selected at each corner of each intersection (where accessible), and 212 surface soil samples were collected and analyzed for uranium-238, radium-226, thorium-232, and thorium-230.

A mobile gamma scanning van with an on-board computer system was used to identify possible anomalies on public roadways and suspected haul routes used to move wastes from HISS to West Lake Landfill and from SLDS to SLAPS. Public roadways, accessible commercial parking areas surrounding SLDS, and railroad crossings were also scanned. Some intersections and roads near the airport that were previously surveyed were investigated again (ORNL 1991).



134F158.DGN

FIGURE 2-24 TRANSPORTATION ROUTES BETWEEN HISS AND WEST LAKE LANDFILL

3.9 CHARACTERIZATION RESULTS FOR TRANSPORTATION ROUTES BETWEEN HISS AND WEST LAKE LANDFILL AND BETWEEN SLDS AND SLAPS

Twenty-eight intersections between HISS and West Lake Landfill were sampled (Figure 2-24). A total of 231 surface soil samples were collected and analyzed for uranium-238, radium-226, thorium-232, and thorium-230; the concentrations of these radionuclides range from 1.1 to 10, 0.2 to 3.1, 0.3 to 2.2, and 0.4 to 9.0 pCi/g, respectively. Only 2 of the 231 samples exhibit thorium-230 concentrations exceeding the DOE cleanup guideline. These two sampling locations are on the western side of Intersection 28 and at Intersection 2.

Results of the survey along the suspected haul routes between SLDS and SLAPS showed no evidence of residual radioactivity related to past MED/AEC operations. Anomalies detected were attributed to road-base gravel enhanced with thorium-232, phosphate fertilizers, and emanations from SLAPS (ORNL 1991).